

REMARKS

Reconsideration of this application and allowance of the amended claims is respectfully requested.

The amendments to claim 1 are supported by Fig. 2, which shows porous tip electrode 52, as further described on page 8, second complete paragraph, and last paragraph. Clearly, "porous tip electrode" 52 is positioned at the distal tip of the electrode assembly.

The amendments to claims 2, 4 and 5 are for editorial purposes of consistency in the form of dependent claims 2-6.

The amendment to claim 6 is supported by Fig. 1, in view of the description found particularly in the second paragraph of page 7 of the specification, showing an articulating mechanism 17 that articulates guiding catheter 10. The amendment to claim 6 is in response to an objection to that claim.

The amendments to the specification are for purposes of correction of clerical errors, and are not intended to introduce new matter.

Turning to the examiner's comment on applicant's election to the requirement for restriction, found on page 2 of the Office Action, the attention of the examiner is directed to page 9 of the specification.

The examiner will recall that Fig. 2 was elected in response to the requirement for restriction. Note, on page 9 of the specification, first complete paragraph, the statement; "The linear electrode 61 is comprised of a tubular array of conductive metal strands carried on the outer surface of catheter tube 60, the conductive strands extending along the catheter tube 60 in a plurality of directions relative to the

longitudinal axis of the catheter tube 60." This unquestionably refers to the disclosure of Fig. 2.

The attention of the examiner is now directed to claim 7, which the examiner apparently believes does not relate to claim 2 of this application. Note the language: ". . . at least one linear electrode comprising a tubular array of conductive metal strands carried by said catheter tube.... This is language which is quite similar to the disclosure language quoted above on page 9, which language clearly relates to Fig. 2.

Fig. 2, in turn, is an exemplary version of the catheter assembly shown in Fig. 1, in which the two steering mechanisms 17 and 55 are disclosed.

Accordingly, it is submitted that claim 7 and its dependent claims should not be restricted from this application.

The examiner has rejected claims 1, 4 and 5 as unpatentable over Thompson et al. U.S. Patent No. 6,607,505 in view of Scheiner et al. U.S. Patent No. 6,212,434.

Thompson et al. shows a multiple electrode probe 10 that has a series of spaced ring electrodes 22, with the probe being positioned within a sheath 36.

The examiner acknowledges that Thompson fails to disclose a porous tip electrode.

The attention of the examiner is directed to the fact that the presence of the porous tip electrode is a major component of the invention of this application, which comprises an improvement of ablation catheters. The attention of the examiner is directed to the portion of the specification beginning on page 2, second paragraph and page 3, second complete paragraph, in which it is pointed out that in the prior art,

ablation catheters can only form one type of lesion, either a linear lesion or a focal (spot-type) lesion, and not both.

In accordance with this invention, a single ablation catheter is provided, which is capable of forming both linear and focal lesions, because of the presence of a linear electrode such as electrode 61, and also porous tip electrode 52.

While the examiner acknowledges that Thompson et al. fails to show such a porous tip electrode, Scheiner et al. U.S. 6,212,434 is raised. However, Scheiner et al. fails to show the porous tip electrode which, as defined in claim 1, (as amended,) is "at said distal tip". This, of course, is clearly supported by Fig. 2.

To the contrary, while Scheiner does teach at Fig. 15b an electrode 461, which is called at column 18 a "porous tip electrode", the words, though identical with the claim language, clearly represent something that is different. Particularly, it is an electrode which is not at said distal tip of an elongated, central shaft of an inner catheter, as claim 1 requires.

Details of the "porous tip electrodes" disclosed in Scheiner et al. are shown in column 20 and Figs. 18-21. The porous tip electrodes 554, 556, 558, and 564 etc. can be seen to be little projections from a conductive ring such as ring 560, extending laterally outwardly from the ring. While such an electrode does constitute some kind of "porous tip" it is not the kind of porous tip electrode called for in amended claim 1, which must be located "at said distal tip" (of the elongated, central shaft of the inner catheter), as clearly illustrated in Fig. 2 and elsewhere.

Accordingly, it is submitted that claim 1 and its dependent claims are clearly distinct from any combination of Thompson et al. and Scheiner et al., because the

ablation catheter defined in claim 1 is an ablation catheter capable of forming both linear lesions and focal lesions. Thus, it is submitted that the claims are nonobvious and patentable.

The examiner has also rejected claims 1, 4 and 5 as unpatentable over Shearon et al. U.S. Patent No. 5,919,188 in view of Scheiner et al., previously cited. Shearon et al. discloses a linear ablation catheter with an internal electrode which is exposed to the exterior by apertures, so that energy-conducting liquid can enter into contact with the area to be ablated.

Claim 1, as before, calls for "a porous tip electrode at said distal tip", which is not found in Shearon et al. For the reasons described above, it is submitted that Thompson et al. fails to teach such a porous tip electrode at said distal tip, nor do either of the references hint at the beneficial result of a combination of a linear electrode with a porous tip electrode for the purposes of providing both linear lesions and focal lesions with the same catheter.

In view of the above, claim 1 is believed to be patentably distinguished from any combination of Shearon et al. in view of Thompson et al.

Claim 6 has been rejected as obvious over a combination of Thompson et al. or Shearon et al., in view of MacGuire et al. U.S. Patent No. 5,913,854.

MacGuire et al. is cited by the examiner to show a catheter which is controlled by "one or more manipulators (12, 13)". However, these manipulators control the same catheter, while claim 6 calls for a "guiding catheter articulating mechanism", which is added to the "device for articulating said electrode assembly" of claim 1. The electrode assembly being not part of the guiding catheter, but rather part of the inner catheter.

Thus, it is submitted that MacGuire et al., in combination with the other references, does not render claim 6 obvious. Furthermore, it is submitted that there is no teaching of "a porous tip electrode at said distal tip", as called for in claim 1, from which claim 6 depends.

The newly added claims share in the distinctions of their parent claims. Claim 10 depends from claim 7, which has not yet been examined.

Claims 11 and 12 share in the patentable distinctions of claim 1.

All of the newly added claims 10-13 are believed to be clearly supported by the disclosure of this application.

In view of the above, allowance of the claims is respectfully requested.

Respectfully submitted,

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